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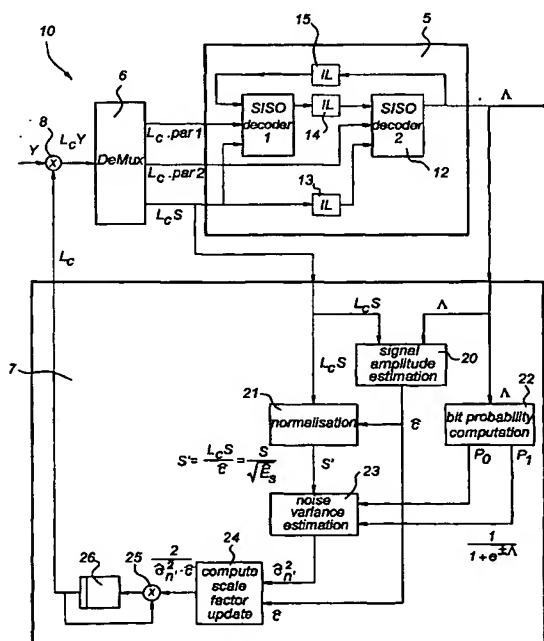
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| <p>(51) <b>International Patent Classification<sup>7</sup>:</b> <b>H03M 13/29</b>,<br/>H04L 1/00</p> <p>(21) <b>International Application Number:</b><br/>PCT/NL2003/000924</p> <p>(22) <b>International Filing Date:</b><br/>23 December 2003 (23.12.2003)</p> <p>(25) <b>Filing Language:</b> English</p> <p>(26) <b>Publication Language:</b> English</p> <p>(71) <b>Applicant (for all designated States except US):</b> <b>TELEFONAKTIEBOLAGET LM ERICSSON</b> (publ)<br/>[SE/SE]; SE-164 83 Stockholm (SE).</p> <p>(72) <b>Inventors; and</b></p> <p>(75) <b>Inventors/Applicants (for US only):</b> <b>MOELKER, Dignus-Jan</b> [NL/NL]; Dragonweg 23, NL-2215 BN Voorhout (NL). <b>STEMERDINK, Jan</b> [NL/NL]; Meijerink 8, NL-7101 VW Winterswijk (NL).</p> | <p>(74) <b>Agent:</b> <b>VAN WESTENBRUGGE, Andries;</b> Nederlandse Octrooibureau, Scheveningseweg 82, P.O. Box 29720, NL-2502 LS The Hague (NL).</p> <p>(81) <b>Designated States (national):</b> AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.</p> <p>(84) <b>Designated States (regional):</b> ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).</p> |
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- (54) Title:** TURBO DECODING WITH ITERATIVE ESTIMATION OF CHANNEL PARAMETERS

- (57) Abstract:** Method and decoding device for decoding a convolutionally coded input data signal  $y$ . The input data signal is multiplied with a scaling factor  $L_c(8)$  and then demultiplexed (6). The demultiplexed input data signal  $L_c S$  is then turbo decoded (5) in order to obtain decoder output likelihood ratio data  $\Lambda$ . The scaling factor  $L_c$  is updated (7) for a next iteration in dependence on a combination of a posteriori likelihood data based on turbo decoded output data  $\Lambda$  and a priori likelihood data based on the demultiplexed signal  $L_c S$ .





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